

nerves and muscles for moving. with gills or lungs for breathing. with blood that contains a special substance (haemoglobin) for the attraction of oxygen from the air. Yet it reserves cases to show that functions can be performed without functional apparatus and that complicated activities may be developed by the simple texture of the body. Animalcules (protozoa) that are altogether devoid of sense organs or nerves, distinguish degrees of light. recognize their particular food. absorb and digest it, move with great rapidity and precision by the vibration of nerveless appendages. Creatures of the jelly-fish type (Coelenterata) fix oxygen from the air without either blood or breathing organs. and earth-worms. belonging to an order much higher up the scale. have neither gills nor lungs, but breathe through the skin. The processes of reproduction. the growth of embryos. the course in which special organs have been evolved, abound with inconsistencies and irregularities which tear holes in any unifying theories. and serve to show that Life is indifferent to rule. In plant-life the cross fertilization of flowers is general. it appears to strengthen vitality; yet species are numerous whose flowers always fertilize themselves—~~are~~ so formed. indeed, as to render cross-fertilization impossible. Amongst animals, sexual reproduction is the rule; but female plant lice (aphides) produce fully-developed young without

the inter-  
vention of a male; the oak apple  
gall-fly  
dispenses with males in producing  
every second  
generation: the eggs from which  
drone bees  
are hatched are developed by the  
queen with-  
out male assistance. The eye of the  
necten  
(mollusc) is similar in construction and  
action to  
that of vertebrate animals : yet it is  
developed  
in a different manner and of different  
materials.